

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NESHAP SOURCE -- RENEWAL

PERMITTEE

Voestalpine Nortrak, Inc.
Attn: Sean Betty, General Manager
690 E. Kenwood Ave
Decatur, Illinois 62526

<u>Application No.:</u> 06050121	<u>I.D. No.:</u> 115015APQ
<u>Applicant's Designation:</u>	<u>Date Received:</u> January 13, 2012
<u>Subject:</u> Steel and Iron Casting	
<u>Date Issued:</u> September 26, 2014	<u>Expiration Date:</u> September 26, 2024
<u>Location:</u> 690 E. Kenwood Ave., Decatur, Macon County	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Two (2) 4 ton/hour Electric Induction Melt Furnace (EU1a & EU1b) Controlled by Dust Collector (DC-1);
One 33 ton/hour Mold Production (Chemically Bonded/No Bake) Controlled by Dust Collector (DC-2);
One 3.3 ton/hour Sand Reclaim System (Steel) controlled by Dust Collector (DC-2);
One (1) Chromite Sand Silo (EU-3b) Controlled by Bin Vent and Dust Collector (DC-2);
One (1) Reclaim Sand Silo (EU-3a) Controlled by Bin Vent and Dust Collector (DC-2);
One (1) Core Mixer (EU-19) Controlled by Dust Collector (DC-2);
One (1) 6 mmBtu/hr Natural Gas-Fired Heat Treating Furnace (EU-6) Controlled by Dust Collector (DC-3);
One (1) Water Quench (EU-7) Controlled by Dust Collector (DC-3);
One (1) Shotblast (EU-20) Controlled by Dust Collector (DC-3);
Air Arc, Finishing, Grinding, and Cleaning (EU-11f-k) Controlled by Dust Collector (DC-3)
One (1) Wheelabrator Shotblast (EU-17) Controlled by Dust Collector (DC-4);
Ductile Iron Magnesium Treatment (EU1c & EU1d) controlled by Dust Collector (DC-5);
Disamatic Ductile Iron Green Sand Molding System with Replacement B&P Mullor (EU-8) Controlled by Dust Collector (DC-5);
One (1) Return Sand Bin (EU-8a) Controlled by Dust Collector (DC-5);
One (1) Silica Sand tank (EU-8b) Controlled by Bin Vent and Dust Collector (DC-5);
One (1) Bond Tank (EU-8c) Controlled by Bin Vent and Dust Collector (DC-5);
Ductile Iron Pouring and Cooling Area (EU-9) controlled by Dust Collector (DC-5);
Didion Shakeout (Iron) (EU-10) controlled by Dust Collector (DC-5);
Ductile Iron Finishing/Grinding (EU-11a-e) Controlled by Dust Collector (DC-6);
Steel Pouring and Cooling Area (EU-2) Controlled by Dust Collector (DC-7);
Manual Shakeout (EU-4) Controlled by Dust Collector (DC-7);

One (1) Reclaim Sand Silo (EU-5) Controlled by Bin Vent and Dust Collector (DC-7);

One (1) Sand Cooler (EU-18) Controlled by Dust Collector (DC-7); and

One (1) Dust Collection Holding Silo (EU-21) Controlled by Bin Vent;

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This federally enforceable state operating permit is issued:

i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Carbon Monoxide (CO), Particulate Matter less than 10 microns (PM₁₀), and Volatile Organic Material (VOM), and 10 tons/year for any single Hazardous Air Pollutant (HAP) and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

ii. To establish federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP) and 25 tons/year of any combination of such HAPs so that the source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, 40 CFR 63 Subpart EEEEE.

b. Prior to initial issuance, a draft of this permit has undergone a public notice and comment period.

c. This permit supersedes all operating permit(s) for this location.

2a. This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries Area Sources, 40 CFR 63 Subparts A and ZZZZZ. The Illinois EPA is administering the NESHAP in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 63.10880(a), you are subject to 40 CFR 63 Subpart ZZZZZ if you own or operate an iron and steel foundry that is an area source of hazardous air pollutant (HAP) emissions.

b. Pursuant to 40 CFR 63.10880(f), if you own or operate an existing affected source, you must determine the initial applicability of the requirements of 40 CFR Part 63 Subpart ZZZZZ to a small foundry or a large foundry based on your facility's annual metal melting capacity for calendar year 2008. If the metal melt production for calendar year 2008 is 20,000 tons or less, your area source is a small foundry. If your metal melt production for calendar year 2008 is greater than 20,000 tons, your area source is a large foundry. You must submit a written notification to the Illinois EPA or USEPA that identifies your

area source as a small foundry or a large foundry no later January 2, 2009.

- c. Pursuant to 40 CFR 63.10881(d), following the initial determination for an existing affected source required in 40 CFR 63.10880(f),
 - i. Beginning January 1, 2010, if the annual metal melt production of your small foundry exceeds 20,000 tons during the preceding calendar year, you must submit a notification of foundry reclassification to the Illinois EPA or USEPA within 30 days and comply with the requirements in 40 CFR 63.10881(d)(1)(i) or (ii), as applicable.
 - A. If your small foundry has never been classified as a large foundry, you must comply with the requirements for a large foundry no later than 2 years after the date of your foundry's notification that the annual metal melt production exceeded 20,000 tons.
 - B. If your small foundry had previously been classified as a large foundry, you must comply with the requirements for a large foundry no later than the date of your foundry's most recent notification that the annual metal melt production exceeded 20,000 tons.
 - ii. If your facility is initially classified as a large foundry (or your small foundry subsequently becomes a large foundry), you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry, even if your annual metal melt production falls below 20,000 tons. After 3 years, you may reclassify your facility as a small foundry provided your annual metal melt production for the preceding calendar year was 20,000 tons or less. If you reclassify your large foundry as a small foundry, you must submit a notification of reclassification to the Illinois EPA or USEPA within 30 days and comply with the requirements for a small foundry no later than the date you notify the Illinois EPA or USEPA of the reclassification. If the annual metal melt production exceeds 20,000 tons during a subsequent year, you must submit a notification of reclassification to the Illinois EPA or USEPA within 30 days and comply with the requirements for a large foundry no later than the date you notify the Illinois EPA or USEPA of the reclassification.
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an

opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- 4. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm.
- 5. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code Part 215 Subpart K (Use of Organic Material) shall apply only to photochemically reactive material.
- 6. This permit is issued based upon the source not being subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, 40 CFR Part 63, Subpart EEEEE. This is a result of the federally enforceable production and operating limitations, which restrict a potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
- 7a. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In

cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.

- b. Pursuant to 35 Ill. Adm. Code 212.681, 35 Ill. Adm. Code 212.321 and 212.322 shall not apply to the following industries, which shall be subject to 35 Ill. Adm. Code 212 Subpart K (Fugitive Particulate Matter):
 - i. Grinding;
 - ii. Sandblasting or shotblasting.
- 8a. Pursuant to 40 CFR 63.6(e)(1)(i), at all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in 40 CFR 63.6(e)(3)), review of operation and maintenance records, and inspection of the source.
- b. Pursuant to 40 CFR 63.6(e)(1)(ii), malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.
- c. Pursuant to 40 CFR 63.6(e)(1)(iii), operation and maintenance requirements established pursuant to Section 112 of the Clean Air Act are enforceable independent of emissions limitations or other requirements in relevant standards.
- 9a. Pursuant to 40 CFR 63.10885(a), for each segregated metallic scrap storage area, bin or pile, you must comply with the materials acquisition requirements in 40 CFR 63.10885(a)(1) or (2). You must keep a copy of the material specifications onsite and readily available

to all personnel with material acquisition duties, and provide a copy to each of your scrap providers. You may have certain scrap subject to 40 CFR 63.10885(a)(1) and other scrap subject to 40 CFR 63.10885(a)(2) at your facility provided the metallic scrap remains segregated until charge make-up.

- i. Restricted metallic scrap. You must prepare and operate at all times according to written material specifications for the purchase and use of only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, chlorinated plastics, or free liquids. For the purpose of 40 CFR 63 Subpart ZZZZZ, "free liquids" is defined as material that fails the paint filter test by EPA Method 9095B, "Paint Filter Liquids Test" (revision 2), November 2004. The requirements for no free liquids do not apply if the owner or operator can demonstrate that the free liquid is water that resulted from scrap exposure to rain.
- ii. You must prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications must include at minimum the information specified in 40 CFR 63.10885(a)(2)(i) or (ii).
 - A. Except as provided in 40 CFR 63.10885(a)(2)(ii), specifications for metallic scrap materials charged to a scrap preheater or metal melting furnace to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.
 - B. For scrap charged to a cupola metal melting furnace that is equipped with an afterburner, specifications for metallic scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastics, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.
- b. Pursuant to 40 CFR 63.10885(b), for scrap containing motor vehicle scrap, you must procure the scrap pursuant to one of the compliance options in 40 CFR 63.10885(b)(1), (2), or (3) for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, you must procure the scrap pursuant to the requirements in 40 CFR 63.10885(b)(4) for each scrap provider, contract, or shipment. You may have one scrap provider, contract, or shipment subject to one

compliance provision and others subject to another compliance provision.

- i. Site-specific plan for mercury switches. You must comply with the requirements in 40 CFR 63.10885(b)(1)(i) through (v).
 - A. You must include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.
 - B. You must prepare and operate according to a plan demonstrating how your facility will implement the scrap specification in 40 CFR 63.10885(b)(1)(i) for removal of mercury switches. You must submit the plan to the Administrator for approval. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the Illinois EPA or USEPA or delegated authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the Illinois EPA or USEPA or delegated authority. The Illinois EPA or USEPA or delegated authority may change the approval status of the plan upon 90-days written notice based upon the semiannual report or other information. The plan must include:
 - I. A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from the scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Illinois EPA or USEPA or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;
 - II. Provisions for obtaining assurance from scrap providers motor vehicle scrap provided to the facility meet the scrap specification;
 - III. Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and

dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and

- IV. Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in 40 CFR 63.10885(b)(1)(ii)(C).
- C. You must require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the facility during the previous year and the basis for the estimate. The Illinois EPA or USEPA may request documentation or additional information at any time.
- D. You must establish a goal for each scrap supplier to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under 40 CFR 63.10885(b)(1) may require only the removal of convenience light switch mechanisms, the Illinois EPA or USEPA will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.
- E. For each scrap provider, you must submit semiannual progress reports to the Illinois EPA or USEPA that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in 40 CFR 63.10885(b)(1)(ii)(A). This information can be submitted in aggregate form and does not have to be submitted for each shipment. The Illinois EPA or USEPA may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.
- ii. You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Illinois EPA or USEPA based on the criteria in 40 CFR 63.10885(b)(2)(i) through

(iii). If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Illinois EPA or USEPA based on the criteria in 40 CFR 63.10885(b)(2)(i) through (iii). The National Mercury Switch Recovery Program and the State of Maine Mercury Switch Removal Program are EPA-approved programs under 40 CFR 63.10885(b)(2) unless and until the Illinois EPA or USEPA disapproves the program (in part or in whole) under 40 CFR 63.10885(b)(2)(iii).

- A. The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;
- B. The program has a goal to remove at least 80 percent of mercury switches from motor vehicle scrap the scrap provider processes. Although a program approved under 40 CFR 63.10885(b)(2) may require only the removal of convenience light switch mechanisms, the Illinois EPA or USEPA will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and
- C. The program sponsor agrees to submit progress reports to the Illinois EPA or USEPA no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Illinois EPA or USEPA may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.
- D. You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.
 - I. The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.

- II. You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Illinois EPA or USEPA or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.
 - III. You must conduct periodic inspections or other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.
- iii. You must certify in your notification of compliance status and maintain records of documentation that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.
 - iv. For scrap not subject to the requirements in 40 CFR 63.10885(b)(1) through (3), you must certify in your notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap.
- c. Pursuant to 40 CFR 63.10886, for each furfuryl alcohol warm box mold or core making line at a new or existing iron and steel foundry, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.
 - d. Pursuant to 40 CFR 63.10890(a), you must comply with the pollution prevention management practices for metallic scrap and mercury switches in 40 CFR 63.10885 and binder formulations in 40 CFR 63.10886.
 - e. Pursuant to 40 CFR 63.10890(h), following the initial determination for an existing affected source as a small foundry, if the annual metal melt production exceeds 20,000 tons during the preceding year, you must comply with the requirements for large foundries by the applicable dates in 40 CFR 63.10881(d)(1)(i) or (d)(1)(ii). Following the initial determination for a new affected source as a small foundry, if you increase the annual metal melt capacity to exceed 10,000 tons, you must comply with the requirements for a large foundry by the applicable dates in 40 CFR 63.10881(e)(1).

- f. Pursuant to 40 CFR 63.10890(i), you must comply with the following requirements of the General Provisions (40 CFR Part 63, Subpart A): 40 CFR 63.1 through 63.5; 40 CFR 63.6(a), (b), (c), and (e)(1); 40 CFR 63.9; 40 CFR 63.10(a), (b)(1), (b)(2)(xiv), (b)(3), (d)(1), (d)(4), and (f); and 40 CFR 63.13 through 63.16. Requirements of the General Provisions not cited in the preceding sentence do not apply to the owner or operator of a new or existing affected source that is classified as a small foundry.
- 10a. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.
- b. Pursuant to 35 Ill. Adm. Code 212.307, all unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.
- c. Pursuant to 35 Ill. Adm. Code 212.308, crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, storage bins and fine product truck and railcar loading operations shall be sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method in accordance with an operating program.
- d. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 35 Ill. Adm. Code 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
- e. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
 - i. The name and address of the source;
 - ii. The name and address of the owner or operator responsible for execution of the operating program;
 - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;

- iv. Location of unloading and transporting operations with pollution control equipment;
 - v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code Part 212 Subpart K (Fugitive Particulate Matter), including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
 - vi. Estimated frequency of application of dust suppressants by location of materials; and
 - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- f. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with 35 Ill. Adm. Code Part 212 Subpart K and shall be submitted to the Illinois EPA for its review.
- 11a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- b. The dust collectors shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.
- c. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the dust collectors such that the dust collectors are kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
- d. The heat treat furnace shall only be operated with natural gas as the fuel. The use of any other fuel in the heat treat furnace requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- 12a. Emissions and operation from the iron and steel foundry shall not exceed the following limits:

<u>Equipment</u>	<u>Metal Throughput</u>		<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>		<u>Factor</u> <u>(lbs/Ton)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Induction Furnace	3,504	35,040	Pb	0.0005	0.001	0.01
			PM	0.045	0.08	0.79
			PM ₁₀	0.043	0.08	0.75
Magnesium	1,504	15,040	PM	0.09	0.07	0.68

<u>Equipment</u>	<u>Metal Throughput</u>		<u>Pollutant</u>	<u>Emission Factor</u>	<u>Emissions</u>	
<u>Treatment</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>		<u>(lbs/Ton)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
(Ductile Iron)			PM ₁₀	0.09	0.07	0.68
Mold Pouring,	1,900	19,000	CO	5.44	5.17	51.68
Cooling and			NO _x	0.01	0.01	0.10
Shakeout			PM	4.20	3.99	39.90
(Steel)			PM ₁₀	2.06	1.96	19.57
			SO ₂	0.02	0.02	0.19
			VOM	5.04	4.79	47.88
Mold Pouring, and	1,504	15,040	NO _x	0.01	0.008	0.08
Cooling (Iron)			PM	4.20	3.16	31.58
			PM ₁₀	2.06	1.55	15.49
			SO ₂	0.02	0.02	0.15
Mold Shakeout	1,504	15,040	PM	0.160	0.12	1.20
(Iron)			PM ₁₀	0.112	0.08	0.84
Mold Pouring,	1,504	15,040	CO	4.50	3.38	33.84
Cooling, and			VOM	1.34	1.01	10.08
Shakeout (Iron)						
Core Mixer	2803	28,032	PM	0.18	0.25	2.53
			PM ₁₀	0.027	0.04	0.38
			VOM	1.17	1.64	16.40
Sand Reclaim	6,000	60,000	PM	0.18	0.54	5.40
(Steel)			PM ₁₀	0.027	0.08	0.81
Sand Cooler	17,472	174,720	PM	0.18	1.57	15.73
			PM ₁₀	0.027	0.24	2.36
Sand System	4,512	45,120	PM	0.18	0.41	4.06
(Iron)			PM ₁₀	0.027	0.06	0.61
ACFNB Mold	5,775	57,750	VOM	1.658	0.05	0.48
Production						
(Steel)						
Sand Silo(s)	4,512	45,120	PM	0.005	0.011	0.113
(Iron)			PM ₁₀	0.005	0.011	0.113
Bond Silo(s)	677	6,768	PM	0.005	0.002	0.017
(Iron)			PM ₁₀	0.005	0.002	0.017
Sand Silo	6,000	60,000	PM	0.005	0.015	0.15
(Steel)			PM ₁₀	0.005	0.015	0.15

These limits are based on representations of the limited production rates; the use of standard emission factors (FIRE, Version 6.25); Casting Emission Reduction Program (CERP); and manufacturer's rated control efficiencies for the dust collectors.

- b. Emissions from the combustion of natural gas in the heat treating (steel) operation:

Natural Gas Usage		Pollutant	Emission Factor	Emissions	
(mmscf/Mo)	(mmscf/Yr)		(Lbs/mmscf)	(Ton/Mo)	(Ton/Yr)
6.6	66.1	CO	84.00	0.22	2.78
		NO _x	100.00	0.26	3.30
		PM ₁₀	1.90	0.01	0.06
		SO ₂	0.60	0.002	0.02
		VOM	5.50	0.01	0.18

These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- c. This permit is issued based on negligible emissions of particulate matter from each finishing and grinding, and tool making. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
- d. This permit is issued based on negligible emissions of volatile organic material from each, negligible manual shakeout, water quench, and plastic injection molding. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
- e. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from this source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA and the NESHAP for Iron and Steel Foundries, 40 CFR 63 Subpart EEEEE.
- f. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 13a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be

specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.

- ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
- b. Testing required by Condition 14 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 14. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 15a. Pursuant to 40 CFR 63.10(b)(1), the owner or operator of an affected source subject to the provisions of 40 CFR Part 63 shall maintain files of all information (including all reports and notifications) required by 40 CFR Part 63 recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
- b. Pursuant to 40 CFR 63.10(b)(2)(xiv), the owner or operator of an affected source subject to the provisions of 40 CFR Part 63 shall maintain relevant records for such source of all documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.

- c. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
- 16a. Pursuant to 40 CFR 63.10890(d), as required by 40 CFR 63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
- b. Pursuant to 40 CFR 63.10890(e), you must maintain records of the information specified in 40 CFR 63.10890(e)(1) through (7) according to the requirements in 40 CFR 63.10(b)(1).
 - i. Records supporting your initial notification of applicability and your notification of compliance status according to 40 CFR 63.10(b)(2)(xiv).
 - ii. Records of your written materials specifications according to 40 CFR 63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in 40 CFR 63.10885(a)(1) and/or for the use of general scrap in 40 CFR 63.10885(a)(2) and for mercury in 40 CFR 63.10885(b)(1) through

- (3), as applicable. You must keep records documenting compliance with 40 CFR 63.10885(b)(4) for scrap that does not contain motor vehicle scrap.
- iii. If you are subject to the requirements for a site-specific plan for mercury switch removal under 40 CFR 63.10885(b)(1), you must:
- A. Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and
 - B. Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under 40 CFR 63.10885(b)(1)(ii)(C). You must identify which option in paragraph 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under 40 CFR 63.10890(f).
- iv. If you are subject to the option for approved mercury programs under 40 CFR 63.10885(b)(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If you purchase motor vehicle scrap from a broker, you must maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.
- v. Records to document use of binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by 40 CFR 63.10886. These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.
- vi. Records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provides information on the binder or coating materials used.

- vii. Records of metal melt production for each calendar year.
- 17. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 IAC Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 18a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit.
 - i. Records addressing use of good operating practices for the dust collectors:
 - A. Operating logs for the dust collectors, including operating data (pressure drop or stack condition), daily upon startup;
 - B. Records for periodic inspection of the dust collectors with date, individual performing the inspection, and nature of inspection; and
 - C. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - ii. Steel and Iron casting production (tons/month and tons/year); and
 - iii. Silica/chromite sand blend usage (tons/month and tons/year);
 - iv. Furfuryl alcohol (Furan) No-Bake resin usage (tons/month and tons/year);
 - v. Natural gas consumption (mmscf/month and mmscf/year); and
 - vi. Monthly and annual emissions of CO, NO_x, Pb, PM, PM₁₀, SO₂, VOM, and HAPs emissions from the source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 19a.
 - i. Pursuant to 40 CFR 63.9(h)(1), the requirements of 40 CFR 63.9(h)(2) through (h)(4) apply when an affected source becomes subject to a relevant standard.
 - ii.
 - A. Pursuant to 40 CFR 63.9(h)(2)(i), each time a notification of compliance status is required under 40 CFR Part 63, the

owner or operator of such source shall submit to the Illinois EPA or USEPA a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list—

- I. The methods that were used to determine compliance;
 - II. The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
 - III. The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;
 - IV. The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;
 - V. If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);
 - VI. A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and
 - VII. A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.
- B. Pursuant to 40 CFR 63.9(h)(2)(ii), the notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or

other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under 40 CFR Part 63, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

- iii. Pursuant to 40 CFR 63.9(h)(5), if an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in 40 CFR 63.5(d) in place of the actual emissions data or control efficiencies required in 40 CFR 63.9(d)(1)(ii)(H) and (d)(2) of 40 CFR 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in 40 CFR 63.9.
- b. Pursuant to 40 CFR 63.9(j), any change in the information already provided under 40 CFR 63.9 shall be provided to the Illinois EPA or USEPA in writing within 15 calendar days after the change.
- c. Pursuant to 40 CFR 63.10(d)(1), notwithstanding the requirements in this paragraph or 40 CFR 63.10(e), and except as provided in 40 CFR 63.16, the owner or operator of an affected source subject to reporting requirements under 40 CFR Part 63 shall submit reports to the Illinois EPA or USEPA in accordance with the reporting requirements in the relevant standard(s).
- 20a. Pursuant to 40 CFR 63.10890(f), you must submit semiannual compliance reports to the Illinois EPA or USEPA according to the requirements in 40 CFR 63.10(e). The report must clearly identify any deviation from the pollution prevention management practices in 40 CFR 63.10885 or 40 CFR 63.10886 and the corrective action taken.
- 21. Pursuant to 35 Ill. Adm. Code 212.11(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- 22a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant

records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
2009 Mall Street
Collinsville, Illinois 62234

It should be noted that this permit has been revised to include the operation of the equipment described in Construction Permits #10030006 and #13100035.

It should also be noted that fuel burning emission unit other than those listed in 35 Ill. Adm. Code 201.146(c) for direct systems used for comfort heating purposes and indirect heating systems with a design heat input capacity of less than 2930 kW (10 mmBtu/hr) operations are exempt from permitting requirements, pursuant to 35 Ill. Adm. Code 201.146(d).

If you have any questions on this, please call German Barria at 217/785-1705.

Raymond E. Pilapil
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

REP:GB:jws

cc: Illinois EPA, FOS Region 3
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the iron and steel foundry operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, (e.g., 100 tons/year for CO, PM₁₀, and VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAP), at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

	E M I S S I O N S (Tons/Year)						Single	Combined
Emission Unit	CO	NO _x	PM	PM ₁₀	SO ₂	VOM	HAP	HAPs
Induction Furnace			0.79	0.75			0.01 ¹	0.01
Magnesium Treatment			0.68	0.68				
Mold Pouring, Cooling, and Shakeout (steel)	51.68	0.10	39.90	19.57	0.19	47.88		
Mold Pouring, Cooling, and Shakeout (iron)	33.84	0.08	32.78	16.33	0.15	10.08		
Core Mixer			2.53	0.38		16.40		
Sand Reclamation (Steel)			5.40	0.81				
Sand Cooler			15.73	2.36				
Sand System (Iron)			4.06	0.61				
ACFNB Mold Production (Steel)					0.48			
Sand Silos (Iron)			0.13	0.13				
Bond Silos (Iron)			0.02	0.02				
Sand Silo (Steel)			0.15	0.15				
Finishing, Grinding, tooling			1.32					
Natural Gas Combustion (Heat Treating)	2.78	3.30	0.25	0.06	0.02	0.18		
Manual Shakeout, Water Quench, and Plastic Injection Molding	----	----	----	----	1.32	-----	----	----
Totals	88.30	3.48	103.74	41.85	2.16	74.54	9.0	22.5

¹ Lead